

ABSTRACT OF THE DISCLOSURE

A macro model of a programmable NROM for simulating the characters of the NROM under programming operation. Charges are stored in a portion of the nitride material layer to form a charge trapped region when the NROM is programmed. A
5 normal MOS symbol element and a short channel MOS symbol element are respectively represent a MOS without having the charge trapped region and a MOS with a charge trapped region. Moreover, the normal MOS symbol element is series with the short channel MOS symbol element, wherein a source of the short channel MOS symbol element is coupled with a drain of the normal MOS symbol element.